AMENDMENTS TO THE CLAIMS

1.   (Currently Amended) A performance counter framework for rendering <u>software</u> performance counter data in a computer system, the performance counter framework comprising:

a processor;

an operating system executed by the processor;

<u>computer-readable storage media including computer-readable instructions and program modules executable by the processor;</u>

a performance counter provider application process executed by the processor <u>and stored on the computer-readable storage media, the performance counter provider application process enabled to generate raw performance counter information corresponding to software performance in the computer system</u>;

a performance counter consumer application process executed by the processor <u>and stored on the computer-readable storage media, the performance counter consumer application process enabled to receive and process the raw performance counter information generated by the performance counter provider application process</u>;

[[an]] <u>a counter provider</u> application program interface <u>(API)</u> of the operating system, ~~comprising a set of functions including: a counter registration function~~ <u>stored on the computer-readable media,</u> called by the performance counter provider application process, <u>and enabled</u> to<u>:</u>

<u>register a description corresponding to the performance counter provider application process with the operating system for storage in a repository, the repository being located external to both the performance counter provider application process and the performance counter consumer application process;</u>

allocate a performance counter structure within an address space of the performance counter provider application process, the address space designated by the operating system<u>,</u> ~~wherein the counter registration function~~<u>;</u>

<u>automatically assign, with the counter provider application process,</u> ~~assigns~~ an access function for retrieving performance counter data from the performance counter structure<u>, the access function enabled to be invoked via the operating system by the performance counter consumer application process</u>; [[and]]

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during a run-time of the performance counter provider application process,
register a performance counter provider dataset including referencing the description
from the repository via a GUID (Globally Unique Identifier) of the performance
counter provider application process; and

provide a counter query function called by the performance counter consumer
application process and enabled to:

extract the GUID of the performance counter provider application
process from the repository, and

retrieve counter data corresponding to the GUID of the performance
counter provider application process from the performance counter structure
within the address space of the performance counter provider application
process by invoking the access function via the operating system.

2.   (Currently amended) The performance counter framework of claim 1, wherein
the access function operates within the address space of the performance counter provider
application process by creating a thread to retrieve the performance counter data from the
performance counter structure and return the performance counter to a buffer designated by
the performance counter consumer application process.

3.   (Original) The performance counter framework of claim 2, wherein the access
function is a callback function.

4.   (Currently amended) The performance counter framework of claim 1, wherein
the counter registration function further supports specifying description corresponding to the
performance counter provider application process comprises a data template and at least one
schema definition describing the performance counter data.

5.   (Canceled)

6.   (Canceled)

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7.   (Currently amended) The performance counter framework of claim 1, wherein ~~at least one portion of one of the set of functions~~ the counter provider API requests a block of data items to be created according to a specified dataset template.

8.   (Currently amended) The performance counter framework of claim 1, wherein ~~at least one portion of one of the set of functions~~ the counter provider API provides a list of registered datasets.

9.   (Currently Amended) A method for rendering software performance counter data in a computer system including a processor, an operating system executed by the processor, a performance counter provider application process and a performance counter consumer application process, the method comprising:

   providing, via the operating system, an application program interface comprising a set of functions stored as computer-executable instructions on a computer-readable storage medium and executable by the processor, the set of functions comprising a counter registration API function and a counter query API function;

   calling, by the performance counter provider application process, the counter registration API function to:

      register a description corresponding to the performance counter provider application process with the operating system for storage in a repository, the repository being located external to both the performance counter provider application process and the performance counter consumer application process;

      allocate a performance counter structure within an address space of the performance counter provider application process, the address space designated by the operating system[[,]];

      automatically assign an access function for retrieving the software performance counter data from the performance counter structure, the access function enabled to be invoked via the operating system by the counter consumer application process; and

during a run-time of the performance counter provider application

process, register a performance counter provider dataset including referencing

the description from the repository via a GUID (Globally Unique Identifier) of

the performance counter provider application process,

wherein the performance counter provider application process includes

computer-executable instructions stored on the computer-readable medium

and executable by the processor and is enabled to generate raw performance

counter information corresponding to software performance in the computer

system ~~the counter registration function assigns an access function for~~

~~retrieving performance counter data from the performance counter structure~~;

and

calling, by the performance counter consumer application process, the counter

query API function to:

extract the GUID of the performance counter provider application

process from the repository, and

retrieve counter data corresponding to the GUID of the performance

counter provider application from the performance counter structure within the

address space of the counter provider application process by invoking the

access function via the operating system.

10. (Currently Amended) The method of claim 9, wherein the access function

operates within the address space of the performance counter provider application process to

retrieve the software performance counter data from the performance counter structure.

11. (Original) The method of claim 10, wherein the access function is a callback

function.

12. (Currently Amended)   The performance counter framework of claim 9, wherein

the counter registration API function further supports specifying a data template describing

the software performance counter data.

13. (Currently Amended)   The method of claim 9, further comprising installing a description of the <u>software</u> performance data furnished by a provider associated with the performance counter provider application process.

14. (Currently Amended)   The method of claim 13, wherein the description of the <u>software</u> performance data includes a performance counter data schema.

15. (Original) The method of claim 9, further comprising the step of:

requesting a block of data items to be created according to a specified dataset template.

16. (Original) The method of claim 9, further comprising providing a list of registered datasets.

17. (Currently Amended) A computer-readable storage medium including a first set of computer-executable instructions facilitating rendering <u>software</u> performance counter data in a system including a processor and an operating system executing on the processor, a performance counter provider application process and a performance counter consumer application process, the first set of computer-executable instructions <u>executable by the processor and</u> facilitating executing the steps of:

providing, via the operating system, an application program interface comprising a set of functions, the set of functions comprising a counter registration API function and a counter query API function;

calling<u>, by the performance counter provider application process,</u> the counter registration API function to<u>:</u>

<u>register a description corresponding to the performance counter provider application process with the operating system for storage in a repository, the repository being located external to both the performance counter provider application process and the performance counter consumer application process;</u>

allocate a performance counter structure within an address space of the performance counter provider application process, the address space designated by the operating system[[,]]<u>;</u>

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automatically assign an access function for retrieving the software performance counter data from the performance counter structure, the access function enabled to be invoked via the operating system by the counter consumer application process; and

during a run-time of the performance counter provider application process, register a performance counter provider dataset including referencing the description from the repository via a GUID (Globally Unique Identifier) of the performance counter provider application process,

wherein the performance counter provider application process includes computer-executable instructions stored on the computer-readable medium and executable by the processor and is enabled to generate raw performance counter information corresponding to software performance in the computer system ~~the counter registration function assigns an access function for retrieving performance counter data from the performance counter structure~~; and

calling, by the performance counter consumer application process, the counter query API function to:

extract the GUID of the performance counter provider application process from the repository, and

retrieve counter data corresponding to the GUID of the performance counter provider application from the performance counter structure within the address space of the performance counter provider application process by invoking the access function via the operating system.

18. (Currently Amended) The computer-readable storage medium of claim 17, wherein the access function operates within the address space of the performance counter provider application process to retrieve the software performance counter data from the performance counter structure.

19. (Previously presented) The computer-readable storage medium of claim 18, wherein the access function is a callback function.

20. (Currently Amended) The computer-readable storage medium of claim 17, wherein the counter registration API function further supports specifying a data template describing the <u>software</u> performance counter data.

21. (Currently Amended) The computer-readable storage medium of claim 17, further comprising a second set of computer executable instructions <u>executable by the processor and</u> facilitating performing the step of installing a description of the <u>software</u> performance <u>counter</u> data furnished by a provider associated with the performance counter provider application process.

22. (Currently Amended) The computer-readable storage medium of claim 21, wherein the description of the <u>software</u> performance data includes a performance counter data schema.

23. (Currently Amended) The computer-readable storage medium of claim 17, further comprising a third set of computer executable instructions <u>executable by the processor and</u> facilitating performing the step of:

   requesting a block of data items to be created according to a specified dataset template.

24. (Currently Amended) The computer-readable storage medium of claim 17, further comprising a fourth set of computer executable instructions <u>executable by the processor and</u> facilitating performing the step of:

   providing a list of registered datasets.

25. (Currently Amended)   A method for maintaining and providing <u>software</u> performance counter data via an operating system interface of an operating system executing on a processor, the <u>software</u> performance counter data rendered by counter provider application processes [[to]] <u>for use by performance</u> counter <u>consumer application processes</u> ~~consumers~~, the method comprising the steps of:

   providing, via the operating system, an application program interface comprising a set of functions <u>stored as computer-executable instructions on a computer-readable storage medium and executable by the processor;</u>

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calling, by a performance counter provider application process, a first function
of the set of functions for registering a counter provider associated with [[a]] the
performance counter provider application process within a repository of counter
provider descriptions, wherein

each counter provider entry in the repository includes [[a]] an
indication of a performance counter structure within an address space of
[[the]] a corresponding performance counter provider application process, the
address space designated by the operating system, and an access function for
retrieving performance counter data from the performance counter structure,
and

the repository is located external to both the performance counter
provider application processes and the performance counter consumer
application processes;

storing corresponding software performance counter information within the
performance counter structure;

calling, by the performance counter provider application process, a second
function of the set of functions for registering, during a run-time of the performance
counter provider application process, a performance counter provider dataset
including referencing the description from the repository via a GUID (Globally
Unique Identifier) of the performance counter provider application process, and

calling a ~~second~~ third function of the set of functions for extracting the GUID
of the performance counter provider application process and for retrieving the
performance counter information corresponding to the GUID of the performance
counter provider application process from the address space within the performance
counter provider application process via the access function, in response to a
performance counter query from a performance counter consumer application process
specifying the counter provider.

26. (Currently Amended) A performance counter provider application process
supported by an operating system of a computer for use in a performance counter system
embodying a performance counter provider/consumer model, the performance counter

provider application process comprising <u>computer-</u>executable instructions <u>on a computer-readable storage medium</u> for:

         requesting, via an application program interface, the operating system to <u>register a description corresponding to the performance counter provider application for storage in a repository, the repository being located external to both the performance counter provider application and to a performance counter consumer application, and to</u> allocate a memory space within the performance counter provider application process for a performance counter data structure;

         storing <u>software</u> performance counter information <u>corresponding to the performance counter provider application process</u> within the memory space; and

         providing<u>, by the application program,</u> access by a registered callback function, invoked by a call to the application program interface <u>by a performance counter consumer application process</u>, to the memory space containing the performance counter data structure <u>via a GUID (Globally Unique Identifier) of the performance counter provider application process</u>.

27. (Currently Amended) A performance counter system in a computer comprising:

         a processor,

         an operating system executed by the processor;

         a performance counter provider application process executed by the processor;

         a performance counter consumer application process executed by the processor; and

         an operating system performance counter application program interface comprising<u>:</u>

                a first set of functions <u>stored as computer-executable instructions on a computer-readable storage media, executable by the processor, and</u> callable by the performance counter provider application process to<u>:</u>

                       register a corresponding <u>software</u> performance counter provider in a repository,

                       <u>allocate a performance counter structure within an address space of the performance counter provider application process, and</u>

during a run-time of the performance counter provider

application process, register a performance counter provider dataset

including referencing the corresponding software performance counter

provider via a GUID (Globally Unique Identifier) of the performance

counter provider application process; and

a second set of functions stored as computer-executable instructions on

the computer-readable storage media and executable by the processor for

serving requests originating from the performance counter consumer

application process to enumerate and access the performance counter provider

application process based on the corresponding GUID.